

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification 6 : A61J 1/00</p>	<p>A1</p>	<p>(11) International Publication Number: WO 99/27885 (43) International Publication Date: 10 June 1999 (10.06.99)</p>
<p>(21) International Application Number: PCT/SE98/02146 (22) International Filing Date: 27 November 1998 (27.11.98) (30) Priority Data: 9704386-3 28 November 1997 (28.11.97) SE (71) Applicant (for all designated States except US): GAMBRO AB [SE/SE]; Hamngatan 2, P.O. Box 7373, S-103 91 Stockholm (SE). (72) Inventors; and (75) Inventors/Applicants (for US only): WIESLANDER, Anders [SE/SE]; Vpplingevgen 17 A, S-222 38 Lund (SE). RIPPE, Bengt [SE/SE]; Husrvgen 13, S-237 32 Bjrred (SE). (74) Agent: ASKETORP, Gran; Gambro AB, P.O. Box 10101, S-220 10 Lund (SE).</p>		<p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i></p>
<p>(54) Title: MULTIPLE COMPARTMENT CONTAINER FOR MEDICAL SOLUTION (57) Abstract Container for medical solution, particularly for peritoneal dialysis. A large compartment (10) contains the majority of the medical solution, such as sodium bicarbonate, sodium lactate and sodium chloride. In addition, a plurality of small compartments (14, 15) are provided which contain partial quantities of the medical solution which are not compatible for long term storage with the contents of the large compartment, such as calcium ions and glucose. By mixing the contents of the first (14) or second (15) of the small compartments with the contents of the large compartment (10), a solution is obtained having 1.5 % or 2.5 % glucose and 1.0 mM or 1.6 mM calcium. By mixing the contents of both the small compartments with the contents of the large compartment, a solution is obtained having 4.0 % glucose and 2.5 mM calcium. Due to the increased ultrafiltration at high glucose concentration, these medical solutions are calcium-neutral during use as peritoneal dialysis solutions.</p> <div data-bbox="889 1129 1300 1801"> </div>		

5 CLAIMS

1. Container containing a medical solution, particularly for peritoneal dialysis, consisting of a large compartment (10) having a volume which is sufficiently large to contain the finally prepared medical solution, and at least two small compartments (14, 15) which contain partial quantities of the medical solution which are incompatible for long term storage with the contents of the large compartment, characterized in that the large compartment (10) comprises bicarbonate ions and the small compartments (14, 15) comprises glucose and calcium ions.

2. Container according to claim 1, characterized in that the glucose concentration is substantially proportional to the calcium ion concentration in the finally prepared medical solution.

3. Container according to claim 2, characterized in that the small compartments (14, 15) comprises solutions having the same concentration of glucose and calcium, though having different volumes.

4. Container according to claim 1, characterized in that a first (14) of the small compartments contains glucose and calcium ions with such a concentration that the glucose concentration when mixing the contents of said first small compartment with the contents of the large compartment obtains a first predetermined value, such as 1.5%, and the calcium ion concentration obtains a second predetermined value, such as 1.0 mM,

a second (15) of the small compartments contains glucose and calcium ions having such a concentration that the glucose concentration in the finally prepared solution when mixing the contents of said second small compartment with the contents of the large compartment obtains a third predetermined value, such as 2.5%, and the calcium ion concentration obtains a fourth predetermined value, such as 1.6 mM,

and the contents of the first (14) and the second (15) of the small compartments may be mixed with the contents of the large compartment (10) to obtain a finally prepared solution with higher concentrations of glucose and calcium ions, such as 4% glucose concentration and 2.5 mM calcium.

5 5. Container according to any one of the preceding claims, characterized in that the small compartments (14, 15) further comprises magnesium ions, for example in a concentration such that the resulting concentration in the finally prepared
10 medical solution is about 0.25-0.75 mM.

6. Method for preparing a medical solution, particularly for peritoneal dialysis, in a container consisting of a first large compartment having a volume which is sufficiently large to contain the finally prepared medical solution, and a
15 plurality of small compartments which contain partial quantities of the medical solution which are not compatible for long term storage with the contents of the large compartment, characterized in that the large compartment
20 comprises bicarbonate ions and the small compartments comprise glucose and calcium ions, and in that the contents of one or more of the small compartments are mixed with the contents of the large compartment to produce a medical solution in which the concentration of glucose is substantially proportional to the concentration of calcium ions.

25 7. Use of a container according to any one of claims 1-5 for preparation of a peritoneal dialysis solution in which the concentrations of glucose and calcium ions are substantially proportional.